

REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars:

Objection to the drawings

Revised Fig 1 is shown in the "Replacement Sheets" of drawing appended herewith. Fig 1 has been corrected to include the legend "Prior Art", obviating the Examiner's objection. Accordingly, withdrawal of the objection is requested.

Objections to the specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. In particular, the examiner asserts that "in claim 13, the claimed limitation 'a third control circuit for controlling said transmitter circuit' is not disclose in the specification.

Applicant notes that the third control circuit is described at line 5 of page 6 of the original specification. Further, the specification has been amended to provide literal antecedent basis for the limitation of claim 13. It is respectfully submitted that the language of claim 13 provides sufficient support for this amendment, and therefore no new matter is introduced.

In view of this amendment, withdrawal of the objection is respectfully requested.

Rejection of claims 5, 6, and 14 under 35 U.S.C. § 112, second paragraph

Claims 5, 6, and 14 presently stand rejected as being indefinite. In particular, the examiner finds that in claims 5 and 6, the term "two said second coil axes" is vague. Claims 5 and 6 have been amended to more clearly set forth these coil axes. In view of the amendment, withdrawal of the rejection is respectfully requested.

Further, the examiner asserts that in claim 14, the phrase "corresponds to the number of circles" is vague. It is respectfully submitted that the number of circles, or

turns, of the coil windings would be clearly understood by persons of skill in the art. Accordingly, withdrawal of the rejection is respectfully requested.

Rejection of claims 1-4, 7-11, and 14 under 35 U.S.C. § 102(b)

Claims 1-4, 7-11, and 14 presently stand rejected as being anticipated by Fischell (U.S. 3,888,260). This rejection is respectfully traversed for at least the following reasons.

Claim 1 is amended to point out that the first and second coils are configured to receive a signal from an external source.

It is respectfully submitted that Fischell fails to disclose or suggest first and second coils configured to receive a signal from an external source. On the contrary, Fischell discloses only a single coil 20 configured to receive a signal from an external source.

Fischell disclose an input transformer 20, and an output transformer 12. The input transformer 20 employs a single coil for inductively receiving energy from an external source, for re-charging a battery 19. There is no teaching or suggestion of additional coils employed, wherein additional coils are disposed non-parallel to coil 20.

The output transformer 12 shapes an output pacing signal generated in a pulse generator. “The action of the output transformer 12 [...] causes each output heart stimulating pulse from the pacer to have a negative-going portion of approximately the same area as the positive-going heart triggering pulse portion, in order to minimize the net ion flow in the blood near the cateter electroded [...]” (*Fischell*; col. 8, lines 9-15). Clearly, it would not be desirable for the output transformer 12 to be responsive to any external signal source, give the particular need to properly generate and shape the heart triggering pulse.

Further, Fischell notes that “the inner casing 13 [containing the output transformer 12] is [...] made of a material which is highly conductive and magnetically permeable to form an inner hermetic seal which also functions to shield the output transformer and the electronics 10-11 against electromagnetic interference due to the high energy recharging source.” (*Fischell*; col. 6, lines 21-27).

Therefore, the output transformer 12 cannot be construed as a coil winding configured to receive a signal from an external source, since it is explicitly protected from any external source.

Rejection of claims 5, 6, 12, and 13 under 35 U.S.C. § 103(a)

Claims 5 and 6 presently stand rejected as being unpatentable over Fischell in view of Honig (U.S. 3,218,638). This rejection is respectfully traversed for at least the following reasons.

It is respectfully submitted that Honig fails to overcome the shortcomings of Fischell discussed above with respect to claim 1. Therefore, Fischell in view of Honig fails to form a prima facie case of obviousness of claims 5 and 6. Fischell cannot be modified by the teachings of Honig, because there is no motivation or suggestion to do so. Moreover, modification of Fischell by Honig would not lead to the present invention.

Honig describes an antenna structure 12 having three mutually orthogonal coils 13, 14, and 15, formed in conjunction with a fourth common arm, the three mutually orthogonal coils each being joined at one end of a fourth coil 16 about the common arm. By this arrangement, the antenna is tunable to absorb and reradiate energy impinging thereon, in conjunction with an electrically variable capacitance element 26. The antenna 12 is “tuned” according to a detected biological voltage, such that the antenna “reflects” a signal according to the detected biological voltage. Thus, Honig does not disclose or suggest the use of coils to receive a signal from an external source, but instead to reflect a signal from the external source.

The entire antenna structure 12 is connected to a sensing cell circuit 11. Accordingly, there is no teaching or suggestion of the coils being individually included in any circuit. In fact, it must be noted that in Honig’s embodiments of Figs. 1 and 2, the coils 13, 14, and 15 each have an end left entirely unconnected. Clearly, these coils 13, 14, and 15, each having an end not connected to a circuit, cannot be used in the manner of Fischell’s coil 20 which required both ends to be connected to a circuit to provide a current for recharging of Fischell’s battery 19.

Further, in another embodiment of Honig's Fig. 5 the ends of the coils 13, 14, and 15 left unconnected in Figs. 1 and 2 are tied together, such that the antenna structure 12 is connected to the sensing cell circuit 11 by the connected ends of the coils 13, 14, and 15, and an end of the fourth coil 16. However, there is no teaching or suggestion for using the coils 13, 14, and 15 without fourth common coil 16. Accordingly, Honig provides no teaching or suggestion to modify Fischell with additional coils.

Further, since Fischell discloses only a single coil 20 configured to receive a signal from an external source. Thus, there can be no teaching or suggestion to rearrange Fischell's single coil relative to another coil.

Therefore, it is respectfully submitted that Fischell and Honig fail to form a prima facie case of obviousness of claims 5 and 6, since Fischell and Honig fail to disclose or suggest each and every element set forth in the claims, and because there is no motivation or suggestion to combine these references. Accordingly, withdrawal of the rejection is requested.

Claims 12 and 13 presently stand rejected as being unpatentable over Fischell in view of Raddi (U.S. 3,454,012). This rejection is respectfully traversed for at least the following reasons.

It is respectfully submitted that Raddi fails to overcome the shortcomings of Fischell discussed above with respect to claim 1. Therefore, Fischell in view of Raddi fails to form a prima facie case of obviousness of claims 12 and 13. Accordingly, claims 12 and 13 are allowable over Fischell and Raddi, and withdrawal of the rejection is respectfully requested.

Conclusion

In view of the amendments to the claims, and in further view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is requested that claims 1-14 be allowed and the application be passed to issue.


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Examiner: Terri L. Smith
Art Unit: 3762

If any issues remain that may be resolved by a telephone or facsimile communication with the Applicant's attorney, the Examiner is invited to contact the undersigned at the numbers shown.

BACON & THOMAS, PLLC
625 Slaters Lane, Fourth Floor
Alexandria, Virginia 22314-1176
Phone: (703) 683-0500

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Respectfully submitted,


JOHN B. SCHAEFER
Attorney for Applicant
Registration No. 47,921